
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: ZHANG et al.

Attorney Docket No.:
CISCP158/CPOL157215

Application No.: 09/766,020

Examiner: Shawn S. An

Filed: January 18, 2001

Group: 2621

Title: METHODS FOR EFFICIENT
BANDWIDTH SCALING OF COMPRESSED
VIDEO DATA

Confirmation No.: 8083

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I hereby certify that this correspondence is being transmitted electronically through EFS-WEB to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on **February 19, 2008**.

Signed: _____ /Lydie Fitzsimmons/
Lydie Fitzsimmons

SECOND PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop **AF**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reasons stated below.

This is the second pre-appeal brief request for review. Applicant believes this second attempt at appeal is necessary because the PTO has rejected the application again for essentially the same erroneous reasons as were discussed in the first pre-appeal brief request for review, which resulted in the reopening of prosecution.

M.P.E.P. 707.07(g) states that "Piecemeal examination should be avoided as much as possible." Applicant notes that the Hamilton reference was previously used as a secondary reference in a 35 U.S.C. 103 rejection that included the Haskell reference as the primary reference. The 35 U.S.C. 103 rejection was overturned at the Pre-Appeal Brief Conference. The Examiner has now come back with a 35 U.S.C. 102 rejection using prior art that was previously a secondary reference in the 35 U.S.C. 103. This prior art clearly was in front of the Examiner prior to the previous Office Actions, and clearly was reviewed by the Examiner at that time. The

fact that the Examiner has now changed his position regarding this reference has caused unnecessary delay and expense to the Applicant.

Applicant also notes this is not the first instance of piecemeal examination in this case. In fact, Applicant has repeatedly been forced to address the same pieces of prior art without substantive responses by the Examiner (see first paragraph of First Pre-Appeal Brief Request for Review). Applicant therefore respectfully requests that this continual piecemeal examination be stopped.

As to the substantive aspects of the rejection, Applicant respectfully submits that the Examiner has misunderstood the Hamilton reference. The Examiner argues that Hamilton's FIG. 5, 102 and 104, FIG. 3, and col. 7, lines 8-11 teach "re-quantizing a first portion of the bitstream that includes a B frame including video data using a first re-quantization scheme that does not decode the first portion into a pixel domain" and that Hamilton's FIG. 2 and FIG. 4, 50, 52, and col. 5, line 63-col. 6, line 47 teach "re-quantizing a second portion of the bitstream that includes a P frame including video data or an I frame including video data using a second re-quantization scheme that includes full decoding and re-encoding of the second portion." These sections of Hamilton, however, describe two different, disparate, alternative implementations.

Namely, Hamilton discloses one embodiment in which full decoding is performed, and another embodiment in which partial decoding is performed. This is not the same as teaching an embodiment where both full encoding and partial encoding are performed on different portions of the same video stream. In other words, teaching A or B is not the same as teaching A and B.

Specifically, Hamilton describes FIG. 2 as performing the act of "fully compressing the information received..." and FIG. 4 as illustrating "[a] block diagram of decoder 50 [from FIG. 2]". See Col. 5, line 63 through col. 6, line 3. and Col. 6, line 12.

Hamilton then states that "The approach provided by the embodiment of FIG. 2 optimizes the tradeoff of quality versus data rate for both the satellite and CATV links at the cost of much more complex and expensive equipment at the retransmission site (i.e., headend). In particular, the cost of digital video compression processors is high and maintenance of the decoder 50 and encoder 52 will be required." Col. 6, lines 41-47. Thus, the embodiment in FIG. 4 is the most complex and expensive, but provides the best quality.

Hamilton then goes on to provide for an alternative embodiment that is more cost effective: "The present invention, as illustrated in FIG. 3, enables the compressed video data rate

for secondary links such as a CATV network to be reduced **without the expense and complexity of full decompression and recompression** of the video signal received via satellite. In particular, the embodiment of FIG. 3 does not require the CATV headend to have complex and expensive equipment, such as the motion compensator 80 and frame store memory 82 of decoder 50. **Instead**, the novel headend of FIG. 3 merely requires a re-quantization processor 60 that re-quantizes the received compressed information **without having to completely decompress it.**" Col. 6, lines 48-59, emphasis added.

In response to this argument made in Amendment G, the Examiner responds by asserting that "Applicant's inventive system, similar to Hamilton's teachings, discloses a system wherein **either full or partial decompression** are performed based on selective re-quantization scheme as shown in Figure 5B." Applicant respectfully disagrees, as this mischaracterizes the claimed invention. The claims make clear that **both** full and partial decompression are performed, not one or the other. Referring to claim 1, there are two steps in this claim. First a first portion is re-quantized using partial decompression ("using a first re-quantization scheme that does not decode the first portion into a pixel domain"). Then, a second portion is re-quantized using full decompression ("using a second re-quantization scheme that includes full decoding and re-encoding of the second portion"). The Examiner apparently feels the need to cite to FIG. 5B of the present application as evidence of what the claimed invention covers, but this is erroneous. It is the claims, not the figures, that describe the scope of the claimed invention. Claim 1 is unequivocal about the fact that both steps are performed, not one or the other. Hence, the Examiner's entire argument is erroneous because it uses the figures and not the claims themselves as the basis for determining the scope of the claimed invention.

As such, contrary to what is stated in the Office Action, Hamilton fails to teach a system wherein both full and partial decompression are performed, but rather at best teaches a system wherein either full or partial decompression are performed. As such, Hamilton does not teach an embodiment having each of the elements of claim 1. Therefore, Applicant respectfully submits that claim 1 is in condition for allowance.

As to independent claims 26, and 30-31, these claims contain elements similar to that as described above with respect to claim 1. As such, Applicant respectfully submits that these claims are in condition for allowance for the same reasons as claim 1 described above.

Dependent claims 3-5, 8, 14, and 28 are also patentably distinct from the cited references for at least the same reasons as those recited above for the independent claim, upon which they

ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For at least these reasons, claims 3-5, 8, 14, and 28 are not anticipated or made obvious by the prior art and/or the official notice outlined in the Office Action.

The Examiner rejected claims 7, 12-13, 15 and 27 under 35 U.S.C. 103 as being unpatentable over Hamilton (US 5,617,142).

Dependent claims 7, 12-13, 15, and 27 are also patentably distinct from the cited references for at least the same reasons as those recited above for the independent claim, upon which they ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For at least these reasons, claims 7, 12-13, 15, and 27 are not anticipated or made obvious by the prior art and/or the official notice outlined in the Office Action.

The Examiner rejected claims 6, 29 and 32 under 35 U.S.C. 103 as being unpatentable over Hamilton (US 5,617,142) in view of Applicant's Admitted Prior Art.

Dependent claims 6, 29 and 32 are also patentably distinct from the cited references for at least the same reasons as those recited above for the independent claim, upon which they ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For at least these reasons, claims 6, 29 and 32 are not anticipated or made obvious by the prior art and/or the official notice outlined in the Office Action.

The Examiner rejected claim 11 under 35 U.S.C. 103 as being unpatentable over Hamilton (US 5,617,142) in view of Haskell et al. (US 5,687,095).

The Haskell reference was discussed in great length in the First Pre-Appeal Brief Request for Review. Specifically, Applicant argued that Haskell teaches away from full-decoding and re-encoding and that therefore Haskell is unavailable as a prior art reference either alone or in combination with Hamilton. This position was accepted by the PTO, causing prosecution to be reopened.

The Examiner is respectfully reminded of M.P.E.P. 2141.02, which states that "Prior Art Must Be Considered in its Entirety, Including Disclosures that Teach away from the Claims." Thus, the conversion of Haskell from a primary reference to a secondary reference does not

relieve the PTO of its duty to consider the Haskell reference as a whole, and specifically the disclosures that teach away from the claims. Since it has already been established that Haskell teaches away from the claimed invention, Haskell is not a valid secondary reference for use in combination with Hamilton and thus claim 11 is in condition for allowance.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

I am the attorney or agent acting under 37 CFR 1.34

Respectfully submitted,
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